

**DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION**

As below named inventors, we hereby declare that:

Our residence, post office address and citizenship are as stated below under our names.

We believe that we are the original, first and joint inventors of the subject matter which is claimed and for which a patent is sought on the invention entitled

**A CRYSTAL OF BACTERIAL CORE RNA POLYMERASE AND METHODS OF USE THEREOF**

the Specification of which

[ ] is attached hereto;  
[X] was filed on September 15, 1999  
as Application Serial No. 09/396,651  
and was amended on \_\_\_\_\_ (if applicable).

We hereby state that we have reviewed and understand the contents of the above-identified Specification, including the claims, as amended by any amendment referred to above.

We acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, 1.56(a).

We hereby claim foreign priority benefits under Title 35, United States Code, §119 of any provisional application filed in the United States in accordance with 35 U.S.C. §1.119(e), or any application for patent that has been converted to a Provisional Application within one (1) year of its filing date, or any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed.

<u>APPLICATION</u> <u>NUMBER</u>	<u>PRIOR FILED APPLICATION(S)</u> <u>COUNTRY</u>	<u>(DAY/MONTH/YEAR FILED)</u>	<u>PRIORITY</u> <u>CLAIMED</u>
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We hereby claim the benefit under Title 35, United States Code, §120 of any United States application listed below, and, insofar as the subject matter of each of the claims of this application is not disclosed in any prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a), which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION NO. _____	FILING DATE (DAY/MONTH/YEAR) _____	STATUS - PATENTED, PENDING, ABANDONED _____
--------------------------	---------------------------------------	--

We hereby appoint as our attorneys or agents the following persons: Jack Matalon, (Attorney, Registration No. 22,441); Stefan J. Klauber (Attorney, Registration No. 22,604); David A. Jackson (Attorney, Registration No. 26,742); Donald J. Cox, Jr. (Attorney, Registration No. 37,804); Michael D. Davis (Attorney, Registration No. 39,161); Christine E. Dietzel (Agent, Registration No. 37,309); and Michael A. Yamin (Agent, Registration No. 44,414), said attorneys or agents with full power of substitution and revocation to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Please address all correspondence regarding this application to:

DAVID A. JACKSON, ESQ.  
KLAUBER & JACKSON  
411 HACKENSACK AVENUE  
HACKENSACK, NEW JERSEY 07601

Direct all telephone calls to David A. Jackson at (201) 487-5800.

We hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

FULL NAME OF FIRST JOINT INVENTOR:	<u>Seth A. Darst</u>
COUNTRY OF CITIZENSHIP:	United States
FULL RESIDENCE ADDRESS:	500 East 63rd Street, Apt. 16J New York, NY 10021
FULL POST OFFICE ADDRESS:	500 East 63rd Street, Apt. 16J New York, NY 10021

SIGNATURE OF INVENTOR \_\_\_\_\_

DATE \_\_\_\_\_

FULL NAME OF SECOND JOINT INVENTOR: Gongyi Zhang

COUNTRY OF CITIZENSHIP: People's Republic of China

FULL RESIDENCE ADDRESS: c/o National Jewish Medical & Research  
Center  
1400 Jackson Street, K520  
Denver, CO 80206

FULL POST OFFICE ADDRESS: c/o National Jewish Medical & Research  
Center  
1400 Jackson Street, K520  
Denver, CO 80206

SIGNATURE OF INVENTOR \_\_\_\_\_

DATE \_\_\_\_\_

FULL NAME OF THIRD JOINT INVENTOR: Elizabeth Campbell

COUNTRY OF CITIZENSHIP: United States

FULL RESIDENCE ADDRESS: 500 East 63rd Street, Apt. 16J  
New York, NY 10021

FULL POST OFFICE ADDRESS: 500 East 63rd Street, Apt. 16J  
New York, NY 10021

SIGNATURE OF INVENTOR \_\_\_\_\_

DATE \_\_\_\_\_

FULL NAME OF FOURTH JOINT INVENTOR: Leonid Minakin

COUNTRY OF CITIZENSHIP: Russia

FULL RESIDENCE ADDRESS: 190 Frelinghuysen Road  
Piscataway, NJ 08854

FULL POST OFFICE ADDRESS: 190 Frelinghuysen Road  
Piscataway, NJ 08854

SIGNATURE OF INVENTOR 

DATE 12/01/99

*new address:  
K. Severinov*

FULL NAME OF FIFTH JOINT INVENTOR: Konstantin Severinov

COUNTRY OF CITIZENSHIP: Russia

FULL RESIDENCE ADDRESS: 114 Bayard Street, #3  
New Brunswick, NJ 08903

FULL POST OFFICE ADDRESS: 114 Bayard Street, #3  
New Brunswick, NJ 08903

*415 VALENTINE  
STREET  
HIGHLAND PARK  
NJ 08904*

*415 VALENTINE  
STREET  
HIGHLAND PARK  
NJ 08904*

SIGNATURE OF INVENTOR 

DATE 12/01/99

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**A CRYSTAL OF BACTERIAL CORE RNA POLYMERASE AND METHODS OF USE THEREOF**

the Specification of which

- ☐ is attached hereto  
☒ was filed on September 15, 1999  
as Application Serial No. 09/396,651  
and was amended on \_\_\_\_\_ (if applicable).

We hereby state that we have reviewed and understand the contents of the above-identified Specification, including the claims, as amended by any amendment referred to above.

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<u>APPLICATION</u>	<u>PRIOR FILED APPLICATION(S)</u>	<u>PRIORITY</u>
<u>NUMBER</u>	<u>COUNTRY</u> <u>(DAY/MONTH/YEAR FILED)</u>	<u>CLAIMED</u>

We hereby claim the benefit under Title 35, United States Code, §120 of any United States application listed below, and, insofar as the subject matter of each of the claims of this application is not disclosed in any prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a), which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

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FULL NAME OF FIRST JOINT INVENTOR:	<u>Seth A. Darst</u>
COUNTRY OF CITIZENSHIP:	United States
FULL RESIDENCE ADDRESS:	500 East 63rd Street, Apt. 16J New York, NY 10021
FULL POST OFFICE ADDRESS:	500 East 63rd Street, Apt. 16J New York, NY 10021

SIGNATURE OF INVENTOR

Seth Darst

DATE

11/29/99

FULL NAME OF SECOND JOINT INVENTOR: Gongyi Zhang

COUNTRY OF CITIZENSHIP: People's Republic of China

FULL RESIDENCE ADDRESS: c/o National Jewish Medical & Research  
Center  
1400 Jackson Street, K520  
Denver, CO 80206

FULL POST OFFICE ADDRESS: c/o National Jewish Medical & Research  
Center  
1400 Jackson Street, K520  
Denver, CO 80206

SIGNATURE OF INVENTOR 

DATE Dec. 1, 1999

FULL NAME OF THIRD JOINT INVENTOR: Elizabeth Campbell

COUNTRY OF CITIZENSHIP: United States

FULL RESIDENCE ADDRESS: 500 East 63rd Street, Apt. 16J  
New York, NY 10021

FULL POST OFFICE ADDRESS: 500 East 63rd Street, Apt. 16J  
New York, NY 10021

SIGNATURE OF INVENTOR 

DATE NOV. 29, 1999

FULL NAME OF FOURTH JOINT INVENTOR: Leonid Minakin

COUNTRY OF CITIZENSHIP: Russia

FULL RESIDENCE ADDRESS: 190 Frelinghuysen Road  
Piscataway, NJ 08854

FULL POST OFFICE ADDRESS: 190 Frelinghuysen Road  
Piscataway, NJ 08854

SIGNATURE OF INVENTOR \_\_\_\_\_

DATE \_\_\_\_\_

FULL NAME OF FIFTH JOINT INVENTOR: Konstantin Severinov

COUNTRY OF CITIZENSHIP: Russia

FULL RESIDENCE ADDRESS: 114 Bayard Street, #3  
New Brunswick, NJ 08903

FULL POST OFFICE ADDRESS: 114 Bayard Street, #3  
New Brunswick, NJ 08903

SIGNATURE OF INVENTOR \_\_\_\_\_

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FULL POST OFFICE ADDRESS:	500 East 63rd Street, Apt. 16J New York, NY 10021

SIGNATURE OF INVENTOR \_\_\_\_\_

DATE \_\_\_\_\_

FULL NAME OF SECOND JOINT INVENTOR: Gongyi Zhang

COUNTRY OF CITIZENSHIP: People's Republic of China

FULL RESIDENCE ADDRESS: c/o National Jewish Medical & Research  
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1400 Jackson Strett, K520  
Denver, CO 80206

FULL POST OFFICE ADDRESS: c/o National Jewish Medical & Research  
Center  
1400 Jackson Strett, K520  
Denver, CO 80206

SIGNATURE OF INVENTOR \_\_\_\_\_

DATE \_\_\_\_\_



UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office  
ASSISTANT SECRETARY AND COMMISSIONER  
OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

MARCH 11, 2000

PTAS

KLAUBER & JACKSON  
DAVID A. JACKSON  
411 HACKENSACK AVENUE, 4TH FLOOR  
HACKENSACK, NJ 07601



\*101228144A\*

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 12/13/1999

REEL/FRAME: 010438/0899  
NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

DARST, SETH A.

DOC DATE: 11/29/1999

ASSIGNOR:

ZHANG, GONGYI

DOC DATE: 12/01/1999

ASSIGNOR:

CAMPBELL, ELIZABETH

DOC DATE: 11/29/1999

ASSIGNEE:

ROCKEFELLER UNIVERSITY, THE  
1230 YORK AVENUE  
NEW YORK, NEW YORK 10021-6399

SERIAL NUMBER: 09396651  
PATENT NUMBER:

FILING DATE: 09/15/1999  
ISSUE DATE:

RECEIVED

MAR 20 2000



FORM PTO-1595

(Rev. 6/93)

12-20-1999



101228144

U.S. DEPARTMENT OF COMMERCE  
Patent and Trademark Office

EET

Attorney Docket No. 600-1-258

To the Assistant Commissioner for Patents. Please record the attached original documents or copy thereof.

## 1. Name of conveying party(ies):

Seth A. Darst; Gongyi Zhang; and Elizabeth Campbell

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

## 3. Nature of conveyance:

☒ Assignment☐ Merger☐ Security Agreement☐ Change of Name

Other: \_\_\_\_\_

Execution Date: November 29, 1999; December 1, 1999;  
and November 29, 1999

## 2. Name and address of receiving party(ies):

Name: The Rockefeller UniversityAddress: 1230 York AvenueNew York, NY 10021-6399Additional name(s) & address(es) attached? ☐ Yes ☒ No

## 4. Application number(s) or patent number(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

A. Patent Application No.(s)

09/396,651

B. Patent No.(s)

Additional numbers attached? ☐ Yes ☒ No

## 5. Name and address of party to whom correspondence concerning document should be mailed:

Name: David A. JacksonAddress: KLAUBER & JACKSON411 Hackensack Avenue, 4th FloorHackensack, New Jersey 076016. Total number of applications and patents involved: 17. Total fee (37 CFR 3.41): \$40.00☒ Enclosed☐ Authorized to be charged to deposit account, if necessary -  
for overages or underpayments only

## 8. Deposit account number:

11-1153

(Attach duplicate copy of this page if paying by deposit account)

12/20/1999 JSHABAZZ 00000091 09396651

01 FEB 1999

40.00 OP

DO NOT USE THIS SPACE

## 9. Statement and signature.

*To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document.*Michael D. Davis, Reg. No. 39,161  
Name of Person SigningMichael D. Davis  
Signature12/10/99  
DateTotal number of pages including cover sheet, attachments, and document: 5

Mail documents to be recorded with required cover sheet information to:

Assistant Commissioner For Patents  
Box Assignments  
Washington, D.C. 20231

**ASSIGNMENT**

WHEREAS, WE,

Seth A. Darst, a citizen of United States, residing at  
500 East 63rd Street, Apt. 16J  
New York, NY 10021;

Gongyi Zhang, a citizen of People's Republic of China, residing at  
c/o National Jewish Medical & Research Center  
1400 Jackson Street, K520  
Denver CO 80206; and

Elizabeth Campbell, a citizen of the United States, residing at  
500 East 63rd Street, Apt. 16J  
New York, NY 10021;

have invented certain new and useful improvements in

**A CRYSTAL OF BACTERIAL CORE RNA POLYMERASE AND METHODS OF  
USE THEREOF**

for which we have filed an Application for Letters Patent in the United States on September 15, 1999, and was accorded U.S. Serial No. 09/396,651; and

WHEREAS, **THE ROCKEFELLER UNIVERSITY,**  
an education corporation organized and existing under  
the laws of the State of New York,  
with office at 1230 York Avenue, New York, NY 10021-6399,

ASSIGNEE, is desirous of obtaining the entire right, title and interest in, to and under the said improvements and the said application;

NOW, THEREFORE, for other good and valuable consideration, the receipt of which is hereby acknowledged, we the said

**SETH A. DARST; GONGYI ZHANG; AND ELIZABETH CAMPBELL**

have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, to the said

**THE ROCKEFELLER UNIVERSITY,**

its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said improvements, and the said application and all divisions, renewals, and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which

may hereafter be filed for said improvements in any country or countries foreign to the United States, including the right to claim priority under the terms of any appropriate International Convention based upon said application for Letters Patent of the United States, and all Letters Patent which may be granted from said improvements in any country or countries foreign to the United States and extensions, renewals and reissues thereof; and we hereby authorize and request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States, whose duty is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said

THE ROCKEFELLER UNIVERSITY,

its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the interest herein assigned in the manner hereinabove set forth, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said

THE ROCKEFELLER UNIVERSITY,

its successors, legal representatives and assigns, any fact known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisions, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said

THE ROCKEFELLER UNIVERSITY,

its successors, legal representatives and assigns, to obtain and enforce proper Patent Protection for said improvements in the United States.

IN TESTIMONY WHEREOF, we hereunto set our hand and seal the day and year set opposite our signatures.



Date 11/29, 1999

Seth A. Darst L.S.  
SETH A. DARST

State of Ny :  
County of Ny : ss.

TERESA L. SOLOMON  
Notary Public, State of New York  
No. 31-4989836  
Qualified in New York County  
Commission Expires Dec. 16, 2001

Before me this      day of      1999, personally appeared Seth A. Darst, to me personally known to be the person who is described in and who executed the above instrument, and acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Teresa L. Solomon  
NOTARY PUBLIC

(Affix Seal Here)

Date December 1, 1999

Gongyi Zhang L.S.  
GONGYI ZHANG

State of Colorado :  
County of Denver : ss.

Before me this      day of      1999, personally appeared Gongyi Zhang, to me personally known to be the person who is described in and who executed the above instrument, and acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

Deborah L. Case  
NOTARY PUBLIC  
Deborah L. Case

(Affix Seal Here)

MY COMMISSION EXPIRES:  
May 3, 2003


Date Nov. 29, 19

 L.S.  
ELIZABETH CAMPBELL

State of Ny :  
County of Ny : ss.

TERESA L. SOLOMON  
Notary Public, State of New York  
No. 31-4989836  
Qualified in New York County  
Commission Expires Dec. 16, 2001

Before me this      day of      1999, personally appeared Elizabeth Campbell, to me personally known to be the person who is described in and who executed the above instrument, and acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

  
NOTARY PUBLIC

(Affix Seal Here)

**ASSIGNMENT**

WHEREAS, WE,

Leonid Minakin, a citizen of Russia, residing at  
190 Frelinghuysen Road  
Piscataway, NJ 08854; and

Konstantin Severinov, a citizen of Russia, residing at  
114 Bayard Street  
New Brunswick, NJ 08093

have invented certain new and useful improvements in

**A CRYSTAL OF BACTERIAL CORE RNA POLYMERASE AND METHODS OF  
USE THEREOF**

for which we have filed an Application for Letters Patent in the United States on September 15, 1999, and was accorded U.S. Serial No. 09/396,651; and

WHEREAS, RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY,  
an education corporation organized and existing under  
the laws of the State of New York,  
with office at 58 Bevier Road, Piscataway, NJ 08854-8010,

ASSIGNEE, is desirous of obtaining the entire right, title and interest in, to and under the said improvements and the said application;

NOW, THEREFORE, for other good and valuable consideration, the receipt of which is hereby acknowledged, we the said

LEONID MINAKIN AND KONSTANTIN SEVERINOV

have sold, assigned, transferred and set over, and by these presents do hereby sell, assign, transfer and set over, to the said

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY,

its successors, legal representatives and assigns, the entire right, title and interest in, to and under the said improvements, and the said application and all divisions, renewals, and continuations thereof, and all Letters Patent of the United States which may be granted thereon and all reissues and extensions thereof, and all applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, including the right to claim priority under the terms of any appropriate International Convention based upon said application for Letters Patent of the United States, and all Letters Patent which may be granted from said improvements in any country or countries foreign to the United States and extensions, renewals and reissues thereof; and we hereby authorize and

request the Commissioner of Patents and Trademarks of the United States and any official of any country or countries foreign to the United States, whose duty is to issue patents on applications as aforesaid, to issue all Letters Patent for said improvements to the said

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY,

its successors, legal representatives and assigns, in accordance with the terms of this instrument.

AND WE HEREBY covenant that we have full right to convey the interest herein assigned in the manner hereinabove set forth, and that we have not executed, and will not execute, any agreement in conflict herewith.

AND WE HEREBY further covenant and agree that we will communicate to the said

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY,

its successors, legal representatives and assigns, any fact known to us respecting said improvements, and testify in any legal proceeding, sign all lawful papers, execute all divisions, continuing and reissue applications, make all rightful oaths and generally do everything possible to aid the said

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY,

its successors, legal representatives and assigns, to obtain and enforce proper Patent Protection for said improvements in the United States.

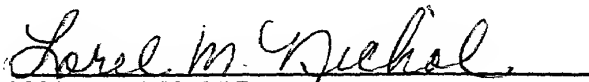
IN TESTIMONY WHEREOF, we hereunto set our hand and seal the day and year set opposite our signatures.

Date Dec. 1, 1999

  
LEONID MINAKIN L.S.

State of New Jersey  
County of Middlesex : ss.

Before me this 1 day of Dec. 1999, personally appeared Leonid Minakin, to me personally known to be the person who is described in and who executed the above instrument, and acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

  
NOTARY PUBLIC  
LOREL M. NICHOL  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires Nov. 10, 2003

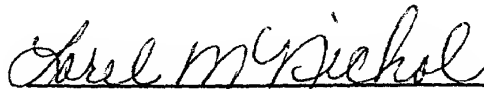
(Affix Seal Here)

Date Dec. 1, 1999

  
K. SEVERINOV L.S.  
KONSTANTIN SEVERINOV

State of New Jersey  
County of Middlesex : ss.

Before me this 1 day of Dec. 1999, personally appeared Konstantin Severinov, to me personally known to be the person who is described in and who executed the above instrument, and acknowledged to me that he/she executed the same of his/her own free will for the purposes therein set forth.

  
NOTARY PUBLIC  
LOREL M. NICHOL  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires Nov. 10, 2003

(Affix Seal Here)